

The Notepad

IDEM's E-newsletter for Schools

Issue 3, Fall 2002

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Indiana Educational Standards and IDEM Outreach Materials

By: Christina Hilton and Chris Gautier



Indiana's Academic Standards for Science were adopted by the State Board of Education in the Fall of 2000. They are the result of a legislative mandate. Public Law 116-1999 requires "clear, concise, and jargon-free academic standards for each

grade level (K-12) that are comparable to national and international academic standards." Even though textbook adoptions had recently taken place, this revision work had to be completed to comply with the law.

The committees that helped develop the 1997 Indiana Proficiency Guide helped to create the Indiana Academic Standards for Science. Each committee was composed of over seventy K-12 teachers, university scientists, other university educators, and business/industry representatives. The committees revised the Standards based on a public review and reviews completed by Achieve, Project 2061, and the Thomas B. Fordham Foundation.

The specific standards were placed into individual grade levels instead of defining a learning standard for several grades. The committees used any available research that discussed where concepts were most appropriately placed to maximize student understanding. For the science document, research included Project 2061's strand maps to ensure that prerequisite knowledge was not placed after an idea that depended on the prerequisite knowledge. To view sample strand maps, see www.project2061.org.

"...clear, concise, and jargon-free academic standards for each grade level (K-12) ."

The Indiana Academic Standards for Science are expectations for all students. They describe what students should "know" and be able to do with regards to Science. What is meant by "know?" Students should be able to explain what they have learned in their own words, link concepts, and apply concepts in novel situations. They do not describe how this content should be taught, nor are they the actual curriculum. Although, curriculum

does need to be aligned with this document.

The Indiana Academic Standards for Science are not checklists of information to be taught in order. Indicators, in most cases, should not be taught in isolation. One well-designed lesson could target a variety of indicators, possibly from several standards. To

view the standards, see <http://ideanet.doe.state.in.us/standards/welcome.html>.

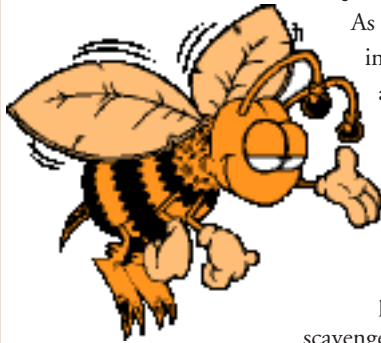
IDEM's Education and Outreach program is currently making use of the new standards. All of our lesson plans, educational booklets, curricula and presentations list the standards they cover. We have already received positive feedback from Indiana teachers for including the relevant standards in our materials, and will continue to do so as new lessons and activities are developed. Using the new standards ensures what we provide will be a useful teaching tool in the classroom that can be implemented readily by all Indiana teachers at all grade levels. To obtain copies of IDEM's lesson plans, visit <http://www.in.gov/idem/enviroed/lessonplans.html>.



Bug of the Month

Yellowjackets

Adapted By: Chris Gautier



Yellowjacket Biology

As with many types of insects, yellowjackets and hornets are both beneficial and problematic winged insects. Both are types of wasps, they are predators and scavengers, and they greatly aid the environment by eliminating pests and reusing waste organic matter. Mistakenly called bees, yellowjackets can be a serious problem with people. A bee can only sting once, whereas a yellowjacket can sting many times over. Yellowjackets are known to aggressively defend their nests and will repeatedly sting any intruder.

"Yellowjacket" and "hornet" are the lay terms given to wasps belonging to the genus *Dolichovespula*, *Vespula* and *Vespa*; but for the sake of this discussion, we will limit ourselves to the term "yellowjacket." Yellowjackets are somewhat short and thick-bodied with legs held in close to their bodies as compared with other wasps. Paper wasps, for example, have long dangling legs attached to a slender body. Yellowjackets are striped yellow and black or white and black, fly very quickly, and are more aggressive than other types of wasps. Their nests are always enclosed in a papery envelope and are generally located in the ground, hanging from eaves, tree branches, and sometimes in wall cavities.

Early in Indiana's warm season, colonies are small and yellowjackets aren't usually a problem. Later in the summer, when colonies are largest, yellowjackets become pests to humans. As they forage for sources of protein and carbohydrates, they are frequently seen scavenging around garbage cans, dumpsters, lunch counters, and playgrounds.

Most fatalities involving bites or stings come from honeybees, not yellowjackets. These fatalities are the result of a person who is stung multiple times or who suffers severe allergic reactions from the inflammatory substances in the venom. Yellowjackets that are flying around and foraging for food don't usually bite, unless physically threatened, such as being struck, or caught in a tight place. If they feel their nest is being threatened, however, they will attack by mobbing the intruder and stinging repeatedly. Threats to yellowjackets can be accidental, such as someone stepping on a nest entrance, or disturbing a nest in a shrub or building. Sometimes, yellowjackets attack when the person is not close, but nearby the nest.

Other sources of disturbances include vibrations from lawn-mowing or athletic field mowing near underground nests. Protective gear should be worn while mowing, especially in the late summer when colonies are large. Protective gear involves covering the whole body, including gloves and a veil over the face. If attacked, running away further aggravates angered insects. The best strategy is to slowly back away until they stop attacking. Information on the beneficial aspect of yellowjackets, and how to avoid stings should be distributed to schoolchildren when school opens after the summer break. See the following web site for tips on avoiding and treating stings at [http://](http://schoolipm.ifas.ufl.edu/tp13c.htm)

"As with many types of insects, yellowjackets and hornets are both beneficial and problematic winged insects."

schoolipm.ifas.ufl.edu/tp13c.htm.

Management options

Chronic problems with yellowjackets around outdoor lunch areas or school athletic fields may signal that a nest is nearby. Ground nests can be found under shrubs, logs, piles of rocks, and other protected areas. Nests inside buildings are usually discovered by observing yellowjackets entering and leaving.

The goal of a yellowjacket management plan should be to reduce human-yellowjacket encounters, but not to completely annihilate them from an area since they are beneficial predators of other insect pests. The two most environmentally-friendly ways to do

this are to alter the habitat so as to reduce food availability around human activities, and to make use of physical controls such as trapping and nest removal. Area-wide poison baiting should be used as a last resort. A good example of habitat modification is making sure garbage containers located on school grounds have tight-fitting lids. The containers should be emptied frequently so contents do not prevent closure of the lid. Regular cleaning of containers will ensure that food wastes do not attract more yellowjackets.

To impede their entrance into buildings, make sure that screens and windows are in perfect shape. Make repairs as needed. Any holes in the building, such as spaces around gas lines or cables entering exterior walls should be caulked. Monthly pest inspections should be made to discover before they become too large and a



Other management options include baited traps to reduce yellowjacket numbers; these are available at hardware store, or contact your Pest Control Operator (PCO). Only a skilled professional should undertake nest removal. Even the slightest disturbance to a nest can cause yellowjackets to swarm and endanger a person.

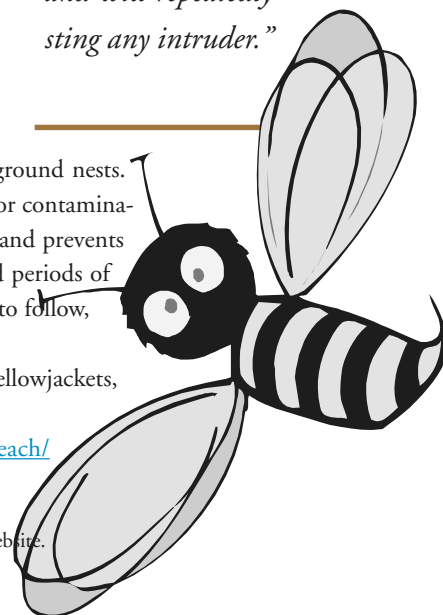
If non-chemical methods prove ineffective, then the last resort is the use of pesticides. This should be carried out by the PCO and in accordance with EPA regulations. There are a number of insecticides for use against yellowjackets such as dusts for wall cavities and underground nests, and chemical sprays for aerial nests.

Under no circumstance should chemicals such as bleach, gasoline, or sulfuric acid ever be poured down underground nests. This dangerous practice constitutes a fire or contamination hazard, needlessly contaminates soil, and prevents the growth of any vegetation for extended periods of time. If you are not sure what procedure to follow, consult with a professional.

For more information on IPM and yellowjackets, please go to the following web site http://www.entm.purdue.edu/entomology/outreach/schoolipm/indoorpest_mgmt.html.

Adapted from the University of Florida IPM website.

"Yellowjackets are known to aggressively defend their nests and will repeatedly sting any intruder."





Dear Lori

Letters to the IDEM Commissioner

Lori F. Kaplan is the commissioner of the Indiana Department of Environmental Management. Do you have a question you would like to ask Lori? Submit your questions electronically to earthweek@dem.state.in.us and your question (with Lori's response) may appear in the next edition of the Notepad.

Dear Lori:

I would like to spice up my science curriculum with some new information adding an environmental twist, but I don't have time to do the research to find new resources. Does IDEM have any resources that I could utilize?

Answer:

Yes we do! IDEM's Project LEAP Lending Library is available to all Indiana teachers and educators. You may borrow from this collection of books, videos, slides, and transparencies for further educational assistance. All resources are arranged by category topic: air, ecosystem and environment, general scientific topics, and water. All resources have suggested grade levels. There is no fee for borrowing these materials. You may view the available resources on the Internet at <http://www.in.gov/idem/leap/library>.

The Project LEAP lending library is maintained by the Indiana Department of Environmental Management and the Indiana State Library. To borrow a resource, simply have your local or school library contact the Indiana State Library via phone, fax or mail. Materials will be shipped to your local library on an interlibrary loan. The usual loan period is thirty days. The Indiana State Library is open Monday - Friday from 8:00 am - 4:30 pm.

Address:

Indiana State Library
140 North Senate Avenue
Indianapolis, Indiana 46204
Telephone: (317) 232-3727
FAX: (317) 232-3728

The Indiana State Library's on-line catalog may be searched by going to: <http://www.statelib.lib.in.us/>.

Dear Lori:

I find myself rushing to try and cover all of the Indiana State Board of Education's Academic Standards during the school year. I have a hard enough time trying to come up with new science activities to keep my students interested and make it fun while working to hit all of the Standards at the same time. Does IDEM have any material written up that would help me out?

Answer:

IDEM offers several hard copy resources that have been written to meet the most current Academic Standards for Science. From educational coloring/ activity booklets to scripted lesson plans, we have something for every teacher. You may download copies of our lessons on air, water, and land pollution, recycling, and children's environmental health at <http://www.in.gov/idem/enviroed/lessonplans.html>.

Better yet, call today and ask for a guest speaker from IDEM to come to your classroom and present the lesson to your students. Each lesson plan comes with engaging hands-on activities, clearly defined objectives and necessary materials, teacher preparation instructions, an actual "script" of how to present the material, a glossary of terms used in the script, and of course, a listing if the Academic Standards covered during the lesson. Don't delay, request a lesson plan copy or guest speaker today by contacting Chad Trinkle at 317/233-9479 or through e-mail at ctrinkle@dem.state.in.us.



Disposal Dilemma

A Message to Schools Regarding Asbestos

By: Dan Stamatkin

The Indiana Department of Environmental Management (IDEM) would like to take this opportunity to remind Local Education Agencies (LEA) of the ongoing concern and continued responsibility of the LEAs concerning asbestos. With the explosion of growth in new school construction, renovation, and the Charter School movement, IDEM has made a priority of communicating to LEAs across the state the environmental health and safety issues concerning asbestos-containing building materials.

In 1986, the United States Congress passed into law the Asbestos Hazard Emergency Response Act (AHERA), commonly known as the "Asbestos in Schools Rule." AHERA requires the active management of asbestos-containing building materials in public and private not-for-profit schools, kindergarten through 12th grade only. It has been fifteen years since AHERA has been enacted, and many LEAs have new personnel and new school buildings that fall under AHERA guidelines. It is important for LEAs to understand that asbestos is still present in many school buildings, and has NOT been banned as a use in building products. These products are still available and may or may not carry warning labels. The U.S. Environmental Protection Agency does not track the sale or distribution of products that contain asbestos.

IDEM urges all LEAs to review the status of their asbestos management programs and take appropriate measures to ensure that the program is in full compliance with the AHERA regulation. Some of the major provisions and general responsibilities for compliance with AHERA include:

- ◆ Ensure that all buildings the LEA owns, rents, leases, or controls have been inspected for the presence of ACBM, and management plans have been developed for the active management of ACBM.
 - ◆ Provide notification in writing on an annual basis to parents, teachers, and LEA employee organizations, of the availability of the management plans.
 - ◆ Ensure that all custodial and maintenance personnel receive awareness training of at least two hours. Two hour asbestos awareness training may be presented to an individual one time. Annual refresher training is not required by AHERA.
 - ◆ At least once every three years after a management plan has been implemented, the LEA shall conduct re-inspections of all buildings where friable, non-friable and assumed ACBM is located.
 - ◆ Retain abatement and response action records for a minimum of three years after the next three year re-inspection. Records should be kept in a centralized location at administrative offices for both the school and LEA.
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- "With the explosion of growth in new school construction, renovation, and the Charter School movement, IDEM has made a priority of communicating to LEAs across the state the environmental health and safety issues concerning asbestos-containing building materials."*
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- ◆ The LEA shall designate a person to ensure that all requirements under AHERA are met. The "designated person" must receive adequate training in basic knowledge of, health effects, detection, identification, options for controlling asbestos-containing building material (ACBM), and relevant Federal and State regulatory requirements.

This list does not detail all requirements under AHERA, but can be utilized as a baseline for measuring a LEAs compliance status. If you have questions concerning asbestos regarding a particular school, you should call the designated person for that particular school, or if you need compliance/technical assistance specific to your LEA, please contact Dan Stamatkin, IDEM AHERA Coordinator, at (317) 233-6513 or via email at dstamatk@dem.state.in.us.



Burning Question

Carbon Monoxide: Should I be concerned?

Compiled by: Chris Gautier

Carbon Monoxide Can Be Deadly

You can't see or smell Carbon Monoxide, but at high levels it can kill a person in minutes. Carbon Monoxide (CO) is produced whenever any fuel such as gas, oil, kerosene, wood, or charcoal is burned. If appliances that burn fuel are maintained and used properly, the amount of CO produced is usually not hazardous. However, if appliances are not working properly or are used incorrectly, dangerous levels of CO can result. Hundreds of people die accidentally every year from CO poisoning caused by malfunctioning or improperly used fuel-burning appliances. Even more die from CO produced by idling cars. Fetuses, infants, elderly people, and people with anemia or with a history of heart or respiratory disease can be especially susceptible. Be safe. Practice the DO's and DON'Ts of carbon monoxide.

CO Poisoning Symptoms

Know the symptoms of CO poisoning. At moderate levels, one can experience severe headaches, become dizzy, mentally confused, nauseated, or faint. It is even possible to die if these levels persist for a long time. Low levels can cause shortness of breath, mild nausea, and mild headaches, and may have longer-term health effects. Since many of these symptoms are similar to those of the flu, food poisoning, or other illnesses, CO poisoning could go unnoticed.

Play it Safe

If you experience symptoms that you think could be from CO poisoning:

- ◆ DO GET FRESH AIR IMMEDIATELY. Open doors and windows, turn off combustion appliances and leave the house or school.
- ◆ DO GO TO AN EMERGENCY ROOM and tell the physician you suspect CO poisoning. If CO poisoning has occurred, it can often be diagnosed by a blood test done soon after exposure.
- ◆ DO be prepared to answer the following questions for the doctor:

- Do your symptoms occur only in the house or school? Do they disappear or decrease when you leave home or school, and reappear when you return?
- Is anyone else in your household or school building complaining of similar symptoms?
- Did everyone's symptoms appear about the same time?
- Are you using any fuel-burning appliances in the home or school building?
- Has anyone inspected your appliances lately?
- Are you certain they are working properly?
- Are vehicles such as cars or buses idling close to open windows or air intakes?

Prevention is the Key to Avoiding Carbon Monoxide Poisoning

- ◆ DO have your fuel-burning appliances -- including oil and gas furnaces, gas water heaters, gas

ranges and ovens, gas dryers, gas or kerosene space heaters, fireplaces, and wood stoves --inspected by a trained professional at the beginning of every heating season. Make certain that the flues and chimneys are connected, in good condition, and not blocked.

- ◆ DO choose appliances that vent their fumes to the outside whenever possible. Have them properly installed and maintain them according to manufacturers' instructions.

- ◆ DO read and follow all of the instructions that accompany any fuel-burning device. If you cannot avoid using an unvented gas or kerosene space heater, carefully follow the cautions that come with the device. Use the proper fuel and keep doors to the rest of the house or school open. Crack a window to ensure enough air for ventilation and proper fuel-burning.

- ◆ DON'T idle the car in a garage -- even if the garage door to the outside is open. Fumes can build up very quickly in the garage and living area of your home.

*"Play it Safe:
If you experience
symptoms that you
think could be from
CO poisoning,
**GET FRESH AIR
IMMEDIATELY!"***

- ◆ DON'T allow school buses or cars to idle near the school during drop off times. Post "No Idling" signs at docks, near the main student entrance or near fresh air intakes. Enforce this policy strictly. Carbon monoxide acts quickly.
- ◆ DON'T use a gas oven to heat your home, even for a short time.
- ◆ DON'T ever use a charcoal grill indoors -- even in a fireplace.
- ◆ DON'T sleep in any room with an unvented gas or kerosene space heater.
- ◆ DON'T use any gasoline-powered engines (mowers, weed trimmers, snow blowers, chain saws, small engines or generators) in enclosed spaces.
- ◆ DON'T ignore symptoms, particularly if more than one person is feeling them. You could lose consciousness and die if you do nothing.

A Few Words About CO Detectors

Carbon Monoxide Detectors are widely available in stores and you may want to consider buying one as a back-up -but not as a replacement for proper use and maintenance of your fuel-burning appliances.

However, it is important for you to know that the technology of CO detectors is still developing, that there are several types on the market, and that they are not generally considered to be as reliable as the smoke detectors found in homes and schools today. Some CO detectors have been laboratory-tested, and their performance varied. Some performed well, others failed to alarm even at very high CO levels, and still others alarmed even at very low levels that don't pose any immediate health risk. Unlike a smoke detector, where you can easily confirm the cause of the alarm, CO is invisible and odorless, so it's harder to tell if an alarm is false or a real emergency.

*"Preventing CO
from becoming a
problem is better
than relying on an
alarm."*

So What's a Consumer to Do?

First, don't let buying a CO detector lull you into a false sense of security. Preventing CO from becoming a problem is better than relying on an alarm. Follow the checklist of DO's and DON'Ts.

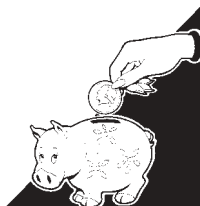
Second, if you shop for a CO detector, do some research on features and don't select solely on the basis of cost. Non-governmental organizations such as Consumers Union (publisher of Consumer Reports), the American Gas Association, and Underwriters Laboratories (UL) can help you make an informed decision. Look for UL certification on any detector you purchase.

Carefully follow manufacturer's instructions for its placement, use, and maintenance.

If the CO detector alarm goes off:

- 1) Make sure it is your CO detector and not your smoke detector.
- 2) Check to see if anyone is experiencing symptoms of poisoning.
- 3) If they are, get them out of the building immediately and seek medical attention. Tell the doctor that you suspect CO poisoning.

For more information about air quality contact the Children's Environmental Health Coordinator at IDEM by calling 1-800-451-6027.



Money Matters

Available Grants for Schools

Compiled By: Alysia Gard

Finding Grants

Every year millions of dollars are set aside by various companies and government agencies to be given away for environmental education grants. As funding for public schools has been cut by the budget crunch this year, finding funding from outside sources will become more important to school districts. The most difficult part is finding these sources of funding for schools.

One great resource for finding many grants in one place on the Internet is www.schoolgrants.org. This web site lists grants that are available to pre-K through 12th grade institutions from various funding sources. IDEM does not endorse any particular grant fund opportunity, nor does this publication note all opportunities available. Here is just a small sample of what's available. Please contact the individual organization to obtain more information about the respective funding opportunities.

Captain Planet Foundation

<http://www.captainplanetfdn.org/>

The Captain Planet Foundation makes awards that usually range between \$250 to \$2,500 for projects that promote understanding of environmental issues and focus on hands-on experiences for students between the ages of 6-18 years. Online proposal forms are available. There is no application deadline.

Ford Motor Company Fund

<http://www.ford.com/en/ourCompany/corporateCitizenship/fordMotorCompanyFund/default.htm>

The Ford Motor Company Fund focuses its contributions on seven primary areas within communities where it does business: arts and humanities, civic activities, education, environment, health and welfare, public policy, and US/International Relations. The fund does not typically support private schools or provide funds for day-to-day business operations. Requests for funds are considered year-round and there is no specific application form to complete. Guidelines for proposal completion are included on their web site. The Ford Motor Company Fund is most interested in funding educational programs that result in building and communicating best educational practices. They

fund programs that strengthen the employee-school relationship; provide quality educational programming based on cultural arts programs; and increase the quality and quantity of enrichment programs. The Fund also supports various areas of research at the post-secondary level.

Lowe's Charitable and Educational Foundation

<http://www.lowes.com/!kn?action=pg&p=AboutLowes/Community>

Lowe's Charitable and Educational Foundation supports projects that enhance the natural environment and/or increase community involvement - including playground renovations. It is recommended that you contact the

manager at your local Lowe's store prior to submitting a formal proposal to the Foundation. There are no deadlines.

Wal-Mart Foundation

<http://www.walmartfoundation.org>

Wal-Mart and SAM's Club offer \$300 grants to schools for environmental programs. Schools can use the grants for environmental education, recycling projects, and planting trees. Schools are eligible for this

"As funding for public schools has been cut by the budget crunch this year, finding funding from outside sources will become more important to school districts."

grant once a year. For more information, contact your local store manager.

U.S. EPA Region 5

<http://www.epa.gov/region5/enved/grants.html>

Each year, EPA's Environmental Education Program awards grants to state agencies, non-profit groups, schools and universities, and tribal organizations to support environmental education (EE) programs and projects.

Grants for above \$25,000 are awarded by the Office of Environmental Education (<http://www.epa.gov/enviroed/grants.html>) in Washington, D.C. Region 5 funds programs for \$25,000 or less in Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. The evaluation and selection process is highly competitive and funds are quite limited.

The application process is highly competitive. Between 15% and 20% of applications are funded. You have a greater chance of being funded if you apply for \$5,000 or less. Please see solicitation notice for details. Funds are limited.

Anticipated Timeline:

- ◆ Solicitation Notice published in late summer. Applications are due in mid-late November.
- ◆ Applications are reviewed and evaluated during the winter.
- ◆ Grants are awarded in the late spring.

Helpful hints for grant writers....

- ◆ The most important thing for grant-writers to remember is that they might submit a perfect application and still receive a rejection. Most foundations have limited resources with which to fund projects. Do not get discouraged if you get a rejection from a possible funding source.
- ◆ READ the grantor's guidelines and instructions carefully. Do not try to make the grantor's program fit what you want to do - your program must be in line with the funding agency's priorities.

"Grantors will rarely fund operating expenses; they usually invest in supplemental programs. Try proposing a project that puts a fresh spin on an existing idea!"

- ◆ Ideas should be innovative, creative and educational. Grantors will rarely fund operating expenses; they usually invest in supplemental programs. Private foundations often seek creative solutions to problems/needs, but they usually do not wish to fund risky projects. Try proposing a project that puts a fresh spin on an existing idea.
- ◆ Keep your goals realistic! It is important to have an evaluation plan. Grantors want to know if the projects they fund are successful--that your project is meeting its goals.
- ◆ Is your project replicable? If so, tell the grantor how you plan to extend the project to other grades or schools.
- ◆ Have a reasonable, detailed budget. Do your homework on costs prior to submitting your application and be sure to explain your budget even if there are no requirements to do so.
- ◆ If possible, cite research that supports the program for which you are requesting funding.
- ◆ Clarity in communicating your ideas is very important. Have someone who is not involved in the project in any way read and critique your draft application.
- ◆ Proofread! Spelling and grammar errors do not convey a positive image.
- ◆ Follow the grantor's instructions to the letter. Applications are turned away when they do not exactly meet the funding agency's requirements.
- ◆ If your project is rejected, ask the grantor for reviewer comments. The comments can offer invaluable tips for improving your future grant applications. Never forget to write thank-you notes - even if your project is not funded initially!





Health Corner

Asthma in Schools

By: Tami Johnson

What is asthma?

Asthma is a chronic lung disease that affects about 17 million people in the United States, with a higher concentration of children. As 1 in 13 American children is affected by asthma, it is the leading cause of absenteeism from Indiana schools. It is characterized by episodes of breathlessness, wheezing, coughing, and tightness in the chest. Serious episodes require emergency breathing treatments and possible hospitalization.

What causes asthma?

Asthma is brought about in part by irritants in the environment that act as triggers to inflammation of the airways. These triggers, as well as the severity of symptoms, vary from person to person. However, there are many triggers that are common to nearly all asthma sufferers.

How does asthma pertain to schools and teachers?

Because children are more prone to asthma than adults and because they spend much of the day in school buildings, it is important for teachers and administrators to be educated on how to help students manage their asthma and how to reduce symptoms during the day. One major problem in schools buildings is that of indoor air quality. In fact, in the United States, over 50% of school buildings have indoor air quality problems. Indoor air in schools is often polluted with chemical pollutants from the building or building maintenance materials, chemicals from science or art classes, improperly maintained ventilation systems, and allergens from classroom animals and cockroaches or pests. Also, outdoor air pollutants and pollens may enter the school through ventilation systems and/or open doors and windows. Indoor air quality can

impact the health of students and teachers, including those with asthma.

What are some of the most common asthma triggers in school and how can they be avoided?

◆ Cigarette Smoke

Schools should be sure to keep not only their building smoke free, but all school grounds and school-sponsored events as well.

◆ Animal Allergens

Make sure that you check with all students before adopting a classroom pet. Skin flakes, urine, and saliva can easily trigger attacks for students with asthma. If you already have a classroom pet, isolation is an effective control method. Isolation measures include: keeping animals away from upholstered furniture and carpets and stuffed toys, and keeping

sensitive individuals as far away from pets as possible.

◆ Air Cleaners

Although air cleaners may be effective for reducing animal dander in the classroom, they should only be used in conjunction with other control methods. Be careful before purchasing one, however, because some air cleaning devices marketed as air purifiers emit ozone, which may actually make asthma worse.

◆ Cockroach and Pest Allergens

Certain proteins in the waste products and saliva of cockroaches can cause allergic reactions and/or trigger asthma attacks. Schools should use Integrated Pest Management (IPM) techniques to rid their buildings of pests rather than harmful chemicals which only further pollute the indoor air. IPM practices include checking areas for cockroaches and pests, cleaning kitchen and storage areas, keeping food and garbage sealed, eliminating pest entryways. Use non-chemical traps and baits and chemicals as a last resort.



"Asthma is a chronic lung disease that affects about 17 million people in the United States, with a higher concentration of children."

◆ Mold and Moisture

School buildings often have problems with mold and moisture. The building should be inspected regularly for signs of mold, moisture, leaks, or spills. Any problems discovered should be taken care of immediately, as they will only get worse with time.

What else can schools do to help their students with Asthma?

Schools are encouraged by both the EPA and IDEM to develop an asthma management plan for every student suffering from the disease. This asthma management plan should include school policies on the use of inhalers and medications, instructions on emergency procedures school staff should take when a student has an asthma attack, and action cards that each student should fill out with specific information on their condition. Each asthma action card should include the student's medical information, identified asthma triggers, peak flow readings, emergency procedures, and emergency contact numbers. This information should be kept on file at school.

Because schools must deal with so many indoor air quality issues, it would also be very wise for schools to take part in the free EPA and IDEM sponsored "Tools for Schools" program. "Tools for Schools" provides schools with free assistance or workshops, incentive mini-grants to use towards improving indoor air quality, and a free kit with materials explaining how to carry out a practical plan of action to improve indoor air

quality at no or very minimal cost. You can download all of the "Tools for Schools" kit with the exception of two videotapes and a unique problem-solving wheel on the Internet at www.epa.gov/iaq/schools. You can

receive the kit in its entirety by sending a request with school letterhead to:

EPA Region 5 - Indoor Air Pollution

77 West Jackson Boulevard
Chicago, IL 60604

If you would like more information on "Tools for Schools" or anything else covered in this article, feel free to contact Tami Johnson,

IDEM's Children's Environmental Health Coordinator by phone at 1-800-451-6027, press 0 and ask for extension 3-5628 or at (317) 233-5628 or by email at tsjohnso@dem.state.in.us.



"Schools are encouraged by both the EPA and IDEM to develop an asthma management plan for every student suffering from the disease."



Super School

Battle Ground Middle School's Recycling Program

By: Sandy Berlin

Battle Ground Middle School has a population of just under 300 sixth, seventh, and eighth grade students. The Ecology Club, formed in 1992, is responsible for recycling all materials in the building. Students currently recycle all grades of paper, cardboard, tin and aluminum cans, glass, #1 and #2 plastics, plastic bags, and printer cartridges. Waste Management provides free toters for most of the recyclables.

Over five tons of recyclables are collected each year - quite a lot for a small school population!

Recycling at BMS is a joint effort between students and staff! Cafeteria workers rinse out the tin cans from the kitchen and put them in the proper toter. When they unpack food for the kitchen, cardboard boxes are stacked on top of the toters by the back door. "Certified Student Recyclers" (CSRs) take mixed paper and other recyclables from the collection bins in each classroom when a teacher asks for them to be emptied. CSRs separate the paper into mixed and office paper containers in the back recycling area. Aluminum drink cans and plastic bottles are collected in the cafeteria, and CSRs put the bottles in the proper toters. Every afternoon, CSRs take cardboard outside to the proper container and check the main office for materials that need to be recycled. To ensure the confidentiality of certain documents that are recycled, teachers moved a shredder to an area where it could easily be used.

Office paper, cardboard, newspaper, tin cans, and plastic items are picked up by Waste Management once a week. CSRs pack the mixed paper that does not qualify as office paper into boxes, and a teacher hauls it to Jefferson Smurfit where it is recycled. Every CSR is



given a coupon that may be redeemed in the cafeteria for various special snack items several times a year. Money earned from recycling printer cartridges pays for the "Thank you for Recycling" treats.

The Ecology Club has very little time to meet; only one twenty minute homeroom session is available each week when the sponsors are able to meet with the club. During that time, members are trained,

notices about changes in collection procedures are explained, new problems are shared, educational signs for the hallways are produced, and statements for the morning announcements are written. Students wanting to become CSRs are also trained during the sponsor's English class by an accompanying CSR. An important part of the recycling program at BGMS is the BGMS Green Team which meets every month. The Green Team is composed of the principal, the recycling coordinator for the building, the secretary, the cook, a

custodian, a teacher, and one student from each grade level. The Green Team meets to discuss how recycling is going in the building and what needs to be done. Since the BGMS Green Team has been meeting, a recycling program has begun after athletic contests in the gym. Further, a confidentiality pledge has become part of being a CSR, and all teachers and staff are informed of any changes in the building's recycling procedure on a regular basis.

Students at Battle Ground Middle School are very cooperative about separating paper from the trash. CSRs are proud of their commitment to the environment and the program. They receive many requests from other students about how to become a CSR!

"Recycling at Battle Ground Middle School is a joint effort between students and staff!"

Because of the commitment of these students and the comprehensiveness of the program, the awareness of the importance of recycling has extended to all of the students and staff members. For their efforts, Battle



Ground Middle School was awarded the Governor's Award for Excellence in Recycling in 2000.

Since that time, other schools in the corporation were prompted and called to action. The entire Tippecanoe School Corporation (TSC) now has a



corporation-wide recycling program complete with recycling coordinators at each building. The TSC Recycling Team meets as a group several times a year to talk about problems in each building and look for solutions together. Each building in the TSC also has a

Green Team to handle problems associated with the respective building. The recycling coordinators receive a small stipend for taking on that role in their respective buildings. Corporation-wide guidelines were established by the team for all students, teachers, and staff to follow for Earth Week 2002.

For more information on how Battle Ground Middle School runs such a successful recycling program, contact Sandy Berlin at sberlin@tsc.k12.in.us.



The Notepad features environmentally conscious schools that promote environmental stewardship and work to keep their campuses environmentally healthy. Tell us why your school should be featured as IDEM "Super School" and you may be featured in the next edition of the Notepad. Nominations may be submitted electronically to schoolnews@dem.state.in.us or by mail to:

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Recycling Bin

America Recycles Day

By: Alysia Gard, Chad Trinkle

America Recycles Day: What's that?

You've no doubt heard of Earth Day, but you may not know about America Recycles Day. America Recycles Day (ARD) is celebrated on November 15 every year. The purpose of ARD is to encourage Americans to support recycling all year by improving their recycling habits and purchasing recycled-content products. This year's theme is "For our children's future, buy recycled today!"

More than 600 events have occurred in Indiana since the inaugural ARD in 1997. Events have ranged from facility tours, which allowed industries to promote their recycling efforts, to open houses during which local solid waste districts helped spread the word about recycling and buying recycled products. School events educated students on the importance of recycling. As a result of these efforts, almost 38,000 Hoosiers have submitted pledge cards spelling out their personal commitments to support recycling and buying recycled products.

One of the best things we can do for recycling is to make sure we purchase recycled-content products. These items no longer look or perform differently than their virgin counterparts. Prices for recycled-content products are becoming competitive with nonrecycled products, and it's becoming easier to find recycled products and packaging.

Federal, state and local government agencies, in partnership with environmental groups and private corporations, are working to increase recycling awareness and participation. They also promote the importance of buying recycled-content products.

How can your school participate in America Recycles Day?

Support recycling in America by holding an ARD event in your own community.

Participating is easy!

- 1) Please choose an event from those listed below, or feel free to create your own original celebration.

- 2) Report your event by emailing the Indiana Recycling Coalition at recyclin@in.net.

State Sponsored Activities

- 1) Pledge your commitment to support recycling by having your students sign an ARD pledge card. Cards that are returned to the State organizers will automatically be entered in the State and National prize drawings. Pledging may be done on-line at www.americarecyclesday.org. You may request hard copies of the pledge cards by calling Chad Trinkle at 800-451-6027.
- 2) Have your K-6th or 7-12th grade students enter the ARD annual Poster Contest by creating a poster that has a buy recycled theme. Great prizes will be given to the winning artist.

Other Activities to Consider

Projects and activities that are easy and quick:

- 1) Create a Celebration of Achievement. Honor someone or a group of people within the school, community, or organization who has made a difference in the recycling world by featuring their accomplishments in the school or local newspaper.
 - 2) Be creative in art class, home economics, and industrial arts classes by using would-be waste to create garbage sculptures that emphasize reuse. The masterpieces can then be displayed at school events like parent-teacher conferences or at the local library or nursing home.
 - 3) Create skits about the Three R's- Reducing, Reusing, and Recycling-for your class or the drama club to perform.
- Consider contacting your local Solid Waste Management District (SWMD) to help you with the following activities.**

- 1) Hold a school-wide cleanup. Work with your SWMD to get a list of recyclable material.
- 2) Contact your SWMD and ask for a recycling presentation. They also can work with your school to arrange a visit by a professional performer.
- 3) Ask your SWMD or waste hauler how your class can take a field trip to a recycling facility in your area.

"The purpose of ARD is to encourage Americans to support recycling all year by improving their recycling habits and purchasing recycled-content products."

The following projects will require more time.

- 1) Adopt a local river, stream or pond, and help keep it free of litter and pollution. Use the same idea to help keep areas in your school clean on a year-round basis.
- 2) Hold an Envirolympics, complete with a can crushing contest and a recycling obstacle course. Have different groups or classes come up with their own events.
- 3) Host an EcoFair or festival with booths containing recycled-content products, environmentally sound goods, organic foods, and less toxic or nontoxic products. Have students create their own environmentally friendly product and explain how it helps conserve natural resources.
- 4) Start a waste reduction awareness or recycling program in your school. Decorate boxes and buckets that normally would be thrown away and use them to collect the recyclables. Contact your SWMD for further advice. The Indiana Department of Environmental Management may be contacted for information concerning applying for grant funds to start a school-wide recycling program at 800-988-7901.
- 5) Create a newsletter for your school that centers on recycling issues and how we can better protect our environment. Print the newsletter on recycled-content paper.
- 6) Start a composting program to turn grass clippings, leaves, and fruit and vegetable scraps into nutrient-rich soil.



About the Notepad

The Notepad is an IDEM quarterly electronic publication designed to inform Indiana educators and school administrators about possible environmental health threats in their buildings and to keep them abreast of environmental education resources.

This is a free publication intended to provide general information. Please contact an appropriate IDEM representative for assistance.

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